



# **Loudoun County**

## **Guidelines for Finished Basements**

### **Required permits for finishing, remodeling or renovating a basement.**

- A building permit is required for all finished basements.
- An electrical permit is required to add electrical outlets & fixtures.
- A plumbing permit is required if adding, setting or replacing plumbing fixtures.
- A gas permit is required if adding, moving or replacing any gas appliance.
- A mechanical permit is required when adding or extending duct work.

### **Required inspections for finished basements must be obtained in the following order:**

- Close-in inspection on electrical, plumbing, gas & mechanical permits.
- Framing inspection on building permit (OK to insulate after approval).
- Insulation inspection (OK to close-in walls & ceilings after approval).
- Finals inspection on all permits after work is completed.

Homeowners may call (703) 777-0220 to schedule inspections  
8:00 a.m. - 5:00 p.m./**Monday - Friday**

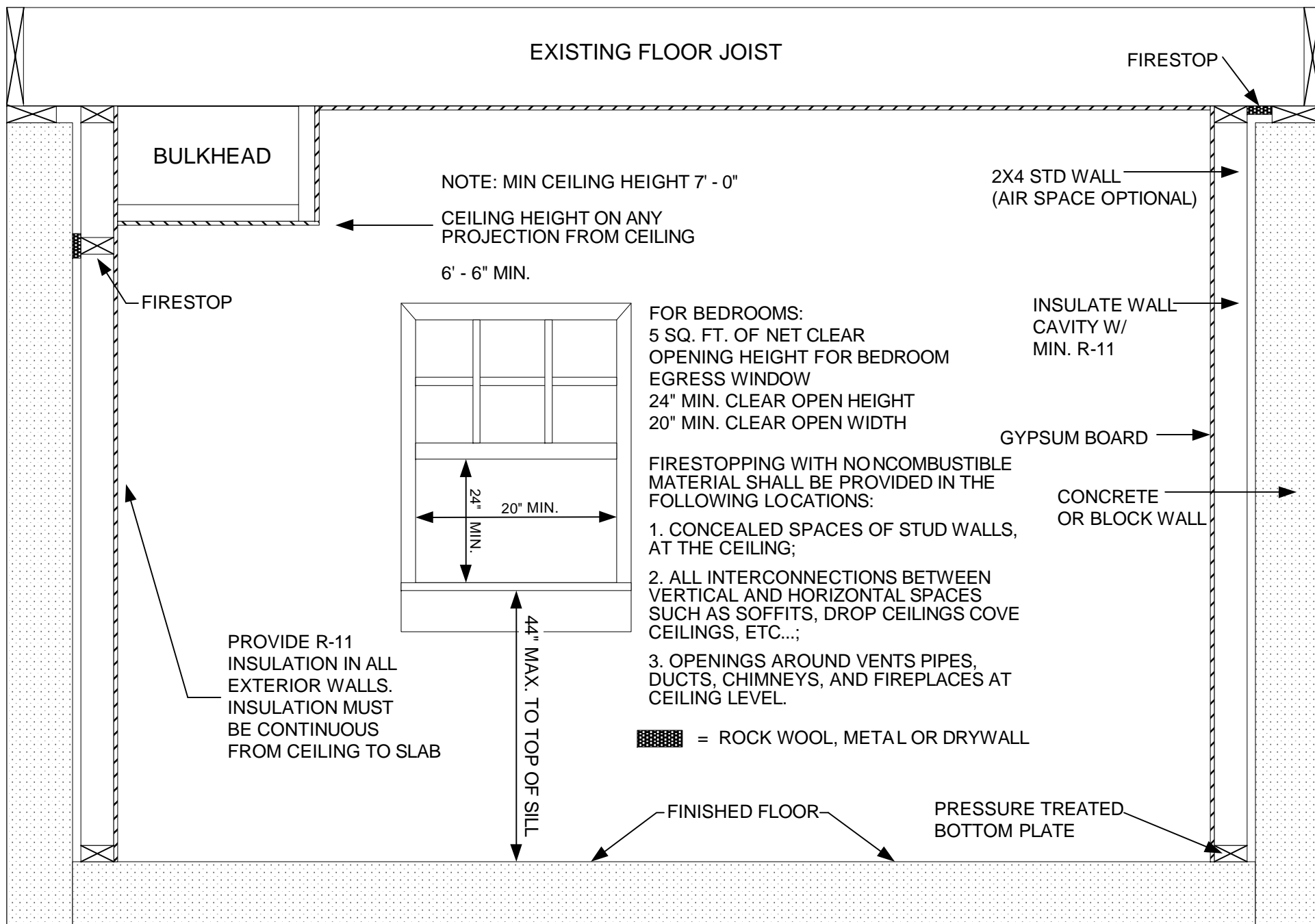
Contractors must call the Automated Inspection Request System (AIRS)  
at (703)771-5331 to schedule inspections or schedule through the Internet at:

[www.loudoun.gov/b&d/wairs](http://www.loudoun.gov/b&d/wairs)

A brochure for the Automated Inspection Request System is available in the permit office  
and online at [www.loudoun.gov](http://www.loudoun.gov). Inspections may be scheduled online at:

[www.loudoun.gov/b&d/wairs](http://www.loudoun.gov/b&d/wairs)

# LOUDOUN COUNTY SUGGESTED STANDARDS FOR FINISHING BASEMENTS



# ELECTRICAL

**Panel box:** Panel box shall not be located in a clothes closet. A minimum of 36" in front (measured from front of enclosure) & a minimum of 30" wide is required at panel box to allow for a clear workspace.

**Outlets:** Outlets shall not be spaced more than 12' apart or further than 6' from doorways, fireplaces, etc. All measurements are along the wall line. Hallways of 10' or more, measured along centerline, shall have at least one receptacle outlet. All wall spaces 2' or wider must have an outlet & shall be treated individually & separately from other wall spaces within the room.

At least one receptacle shall be installed in the bathroom adjacent to each lavatory location. Receptacles installed in bathrooms shall have ground-fault circuit-interrupter protection for personnel & shall be on a 20 amp circuit dedicated to bathroom receptacle(s) only.

**Lighting:** At least one wall switch controlled lighting outlet shall be installed in every habitable room including bathrooms, hallways and stairways. In habitable rooms other than bathrooms & kitchens one or more receptacles controlled by a wall switch shall be considered equivalent to the required lighting outlet.

Stairs with 6 or more risers shall be provided with a means to illuminate the landing and treads with controls at the top & bottom of the stairs.

See Building for requirements on **smoke detectors**.

**ALL WIRING MUST BE INSPECTED  
PRIOR TO CONCEALMENT**

# PLUMBING

**Fixtures:** The center lines of lavatories, water closets & bidets shall not be less than 15" from any sidewall, partitions, vanity or other obstruction, or closer than 30" center-to-center between water closets or adjacent fixtures.

A Minimum of 18" clear in front of lavatories and water closets is required.

**Showers/tubs:** Shower compartments shall have a minimum size of not less than 30" by 30" (900 sq. in.). Hinged shower doors shall open outward.

All bathtub & shower control valves shall be equipped with pressure balance/ thermostatic mixing valve types with high limit stops set at a maximum water temperature of 120°F.

Provide access for all clean-outs & shut-offs.

**ALL WATER & WASTE LINES MUST BE  
INSPECTED PRIOR TO CONCEALMENT.**

# MECHANICAL

**Furnaces:** Warm-air furnaces shall not be installed in bedrooms, bathrooms or clothes/storage closets.

**All appliances:** Adequate clearances must be maintained for appliances (water heaters, furnaces, air handlers, etc.) The appliance label will specify the required clearances.

**Fuel-fired appliances:** Provide adequate means of combustion air for all fuel-fired appliances. Please contact the mechanical department for specific code requirements.

**Duct work:** No permit is required to extend existing supply registers through new ceilings or wall coverings. If additional duct work is needed, a mechanical permit and close-in inspection will be required.

# BUILDING

**Walls:** Interior nonbearing partitions may be constructed with 2 x 3 studs spaced 24" on center or 2 x 4 studs turned flat & spaced 16" on center with single top plate. Treated wood is required when in contact with concrete or masonry.

**Recommended wall construction:** 2 x 4 utility grade studs or better at 16" on center covered with 1/2" gypsum board. Metal studs are also acceptable.

**Ceiling heights:** Minimum ceiling height is 7' - 0" for all habitable spaces except under beams, bulkheads, halls, kitchens & bathrooms where the minimum ceiling height is 6' - 6" including any projections.

**Stairs:** Enclosed accessible spaces under stairs shall

have the walls and ceiling protected with a minimum of 1/2" gypsum board. Handrails shall be continuous the full length of the stairs with ends returned to the wall or newel post.

**Bedrooms:** Every sleeping room shall have at least one operable window or exterior door approved for emergency egress or rescue. NOTE: see drawing for size requirements.

**Smoke detectors:** Smoke detectors shall be installed on each level remodeled, in each sleeping room & outside of each separate sleeping area. Smoke detectors shall be hard wired to the building's primary power source with a battery backup.

**Bathrooms:** Bathrooms shall have an exhaust fan vented directly to the outside unless 3 square feet of openable window is provided. Moisture resistant gypsum backer board is required around tubs & showers.

See Plumbing for minimum fixture clearances.

**Hallways:** Hallway 24" or more in length shall have a minimum finished width of 36".

**Firestopping:** Firestopping shall be provided in the following areas:

1. In concealed spaces of stud walls & partitions at floor & ceiling.
2. At all intersections between concealed vertical & horizontal spaces such as bulkheads & drop ceilings.
3. At openings around vents, pipes, ducts, chimneys & fireplaces at ceiling level, with non-combustible materials.

**Firestopping to be non-combustible material.**

**ALL WORK IS SUBJECT TO FIELD  
APPROVAL. SPECIFIC QUESTIONS  
SHOULD BE DIRECTED TO A COUNTY  
INSPECTOR AT (703) 777-0220**

1. This set of plans and specifications **MUST** be kept on this job at all times. It is unlawful to deviate from or make any changes or alterations on these plans without written permission from the Division of Building Inspections. The issuing of this plan approval and specifications **SHALL NOT** be held to permit or to be an approval of the violation of any county ordinance or state law.
2. **ALL WORK SHALL COMPLY WITH VIRGINIA UNIFORM STATEWIDE BUILDING CODE.**
3. **PLANS APPROVED FOR PERMIT ARE SUBJECT TO APPROVAL OF CONSTRUCTION.**
4. **THIS IS NOT A REVIEW OR APPROVAL OF MECHANICAL, ELECTRICAL, PLUMBING OR SITE PLANS.**

**I HEREBY:**

Waive the Loudoun County plans review.

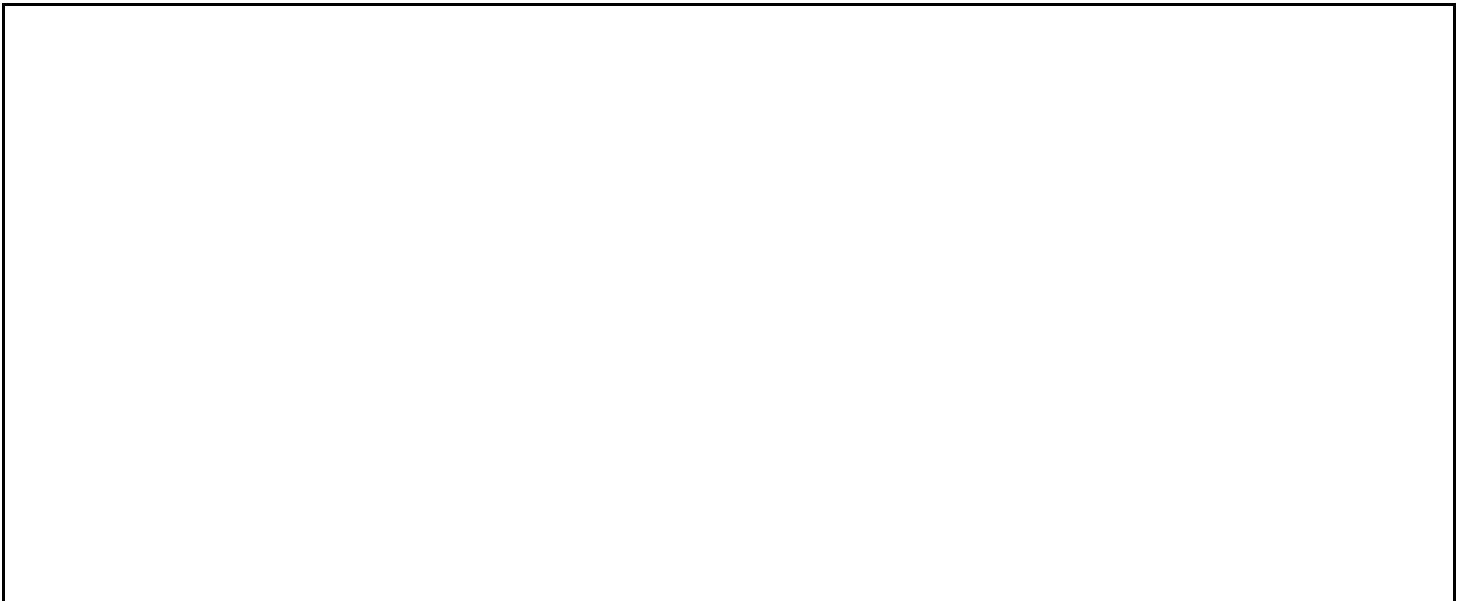
Acknowledge responsibility for construction in full compliance with the Virginia Uniform Statewide Building Code

Acknowledge responsibility for corrections of any and all violations discovered during the County inspection process.

Signature of  
owner/agent

Date

Name of owner as appears  
on Building Application.



**SKETCH FLOOR PLAN OF BASEMENT AND LABEL ALL SPACES.**

**BUILDING PERMIT #**

**INSPECTOR :**